

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
10 June 2004 (10.06.2004)

PCT

(10) International Publication Number  
WO 2004/048144 A2

(51) International Patent Classification?: B60K 37/00

(74) Agent: SUCKLING, Andrew; Marks & Clerk, 4220 Nash Court, Oxford Business Park South, Oxford, Oxfordshire OX4 2RU (GB).

(21) International Application Number:  
PCT/EP2003/050872

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date:  
21 November 2003 (21.11.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0227293.8 22 November 2002 (22.11.2002) GB

(84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except FR, US*):  
WESTERNGECO SEISMIC HOLDINGS LIMITED  
[—/—]; PO Box 71, Craigmuir Chambers, Road Town, Tortola (VG).

(71) Applicant (*for FR only*): SERVICES PETROLIERS  
SCHLUMBERGER [FR/FR]; 42, rue de Saint Dominique, F-75007 Paris (FR).

Published:

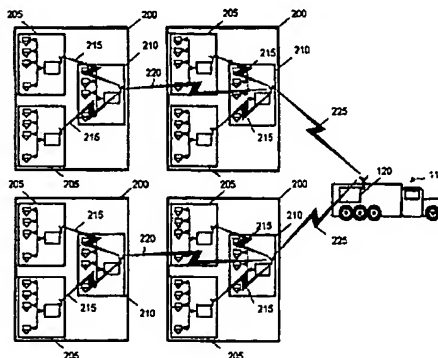
— without international search report and to be republished upon receipt of that report

(72) Inventor; and

(75) Inventor/Applicant (*for US only*): BARAKAT, Simon  
[FR/NO]; Fagertunveien 2, N-0281 Oslo (NO).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SEISMIC ACQUISITION SYSTEM



(57) Abstract: An apparatus and method for collecting data acquired during a seismic survey are disclosed. The apparatus is a seismic survey system, comprising a plurality of data sources, a plurality of cells, and a plurality of independent pathways. The data sources are positioned about an area to be surveyed, each data source being associated with a transmitter capable of transmitting data. The cells each contain a portion of the data sources and their associated transmitters. One of the transmitters within each cell also serves as a gateway for receiving data transmitted from the other data source transmitters within the cell. The independent pathways each contain a portion of the gateways whereby data may be transmitted along each pathway via the gateways and associated transmitters in that pathway. The method is a method for conducting a seismic survey. The method comprises positioning a plurality of seismic data sources about an area to be surveyed; defining a plurality of cells such that each cell contains a portion of the seismic data sources; defining one of the seismic data sources within each cell to also serve as a gateway; defining a plurality of independent pathways such that each pathway contains a portion of the gateways; within each respective cell, transmitting seismic data from the seismic data sources to the gateway; and, within each pathway, transmitting the seismic data from one gateway to another to reach a central location.